



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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May 30, 1996

Ms. Sheri Bianchin
Remedial Project Manager, HSRL-6J
United States Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604



Dear Ms. Bianchin:

Re: First Draft, Technical Memorandum, Lower
Aquifer Investigation Report, American Chemical
Services NPL Site, Griffith, Lake County, Indiana.

Staff of the Indiana Department of Environmental Management, Office of Environmental Response have reviewed the First Draft of the Technical Memorandum, Lower Aquifer Investigation Report for the American Chemical Services, Inc. NPL Site located in the town of Griffith, Lake County, Indiana. The following comments have been generated through a technical review of the document.

General Comments

- [1] The document states that additional lower aquifer wells to be installed within the site boundaries should be deferred until after the upper aquifer groundwater containment systems are in place and operational. This seems appropriate given the high levels of contamination near the source areas and the strong downward gradients, yet it is recommended that the additional lower aquifer well locations be determined now to avoid potential delay once the containment systems are functional.
- [2] The discussion regarding the ACS production wells does not address the contamination detected in the active wells, or sampling the inactive wells. In addition, the document does not provide methods for production well abandonment. Additional discussion needs to be provided.

Specific Comments

- [3] Section 2.2.1, page 5, bullet 1. The report references MW-17, which was not installed during the recent lower aquifer investigation. This needs to be corrected.

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- [4] Section 3.1.2, page 11, paragraph 2. The document states "The water level elevation at MW10C at the October 30, 1996...". The date is incorrect. Please revise accordingly.
- [5] Section 3.3, page 13, paragraph 2. This states that "Vertical gradients...to 0.003 feet downward between MW10 and MW30..." Based upon the data given in Table 6, this value appears to be 0.005, and the values represented as vertical gradients are unitless. The text and table need to be corrected. Additionally, the screen midpoint for M4 needs to be corrected on Table 6.
- [6] Section 3.4, page 14, paragraph 2. The horizontal hydraulic gradient in the lower aquifer is stated to be 0.0047, based upon a head difference of 1.35 feet and a lateral distance of 2,850 feet. The given gradient is incorrect by an order of magnitude. The text needs to be corrected.
- [7] Section 4.1, page 16, paragraph 1, first sentence. It appears that the document should be referencing Table 7 not Table 5.
- [8] Section 4.2, page 16, paragraph 1, second sentence. It appears that the document should be referencing Table 8 not Table 7.
- [9] Section 4.2.1, page 17, paragraph 1. The document states "...that the zone of contamination extends from to a depth of approximately 60 feet in the lower aquifer." The sentence is incomplete and needs to be corrected.
- [10] Section 5.3, page 20, paragraph 2. The document states "Based on the detection of PCE at 480 minutes near the reporting limits (5 ug/L for the field GC), it is likely that the PCE concentrations stabilized at or below the 5 ug/L method reporting limit during the period between 180 and 480 minutes." Table 10 indicates that the reported levels for TCE are also near the reporting limit of 5 ug/L. Please provide further discussion of the stabilization of the TCE concentrations within the text.
- [11] Section 6, page 22. The document states "Because other private wells in the area are located beyond the limits of the upper aquifer contamination presented in the Upper Aquifer Technical Memorandum, other wells have not been included in the sampling plan at this time." This statement does not appear to be appropriate when comparing Figure 8 of this report to Figure 5 in the Upper Aquifer Technical Memorandum. It appears that some additional residents on Reder Road are within the benzene concentration line and may need to be included in the upcoming residential sampling. Please revise accordingly. Furthermore, Section 7.2 may need to be modified to discuss the inclusion of additional residential wells in the upcoming sampling mission.

Ms. Sheri Bianchin

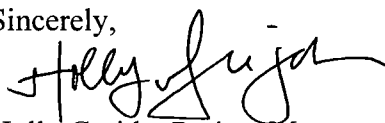
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- [12] Table 8, Footnote 2. The footnote 2 lists several Laboratory Qualifier/Data Validation Qualifier definitions. It does not appear appropriate to include qualifier "E" based upon a statement provided by the signatory for the case narrative of the metals analysis information (Appendix I). This issue needs to be resolved. Furthermore, this table also indicates a rinsate sample being analyzed and reports total lead at 86.7 ppb. The level detected in the rinsate is of concern. Please provide further discussion about this detection, including but not limited to, source of the rinsate, if the source was utilized during subsequent decontamination efforts, and what apparatus was decontaminated prior to the collection of this rinsate. Provide an explanation why lead was present in the rinsate and did not appear in the other samples. Please state why there was only a trace present in the dissolved analysis which was qualified as undetected at 1.4 ug/L.
- [13] Appendix H. Case narratives and analytical data sheets pertaining to the groundwater organics analysis is provided in this section. Several of the data sheets have compounds, detection levels and qualifiers struck out and others written on the side. Please provide an explanation. In addition, please provide clarification why several detection limits were increased.

Staff would appreciate receiving a copy of the comments provided to the Respondents by the United States Environmental Protection Agency. If you have any questions or concerns, please feel free to contact me directly at 317/308-3116.

Sincerely,



Holly Grejda, Project Manager
Superfund Section
Office of Environmental Response

cc: K. Grindstaff, IDEM
F. Metcalfe, IDEM